

Career stage as a moderator of the relationships between organizational commitment and its outcomes: A meta-analysis

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The existing career development and organizational commitment development theory suggests that career stage may moderate the relationship between organizational commitment and outcomes. However, the study of organizational commitment–outcomes linkages across career stages has been a neglected area of research. In light of this insufficiency, a meta-analysis review of 41 samples dealing with the relationships between organizational commitment and outcomes was conducted. The total sample was divided into different time frames according to two indicators of career stage: age and tenure. The findings support the proposition that career stage moderates the relationships between organizational commitment and outcomes. The relationship between commitment and turnover (actual and intended) is stronger in the early career stage than in the mid and late-career stages. The relationships of commitment with performance and absenteeism are strongest in the late-career stage. The findings are discussed in terms of the need for more research that examines organizational commitment–outcomes relationships across career stages as well as across other potential moderators.

The issue of organizational commitment continues to receive attention from both scientists and practitioners (e.g. Griffin & Bateman, 1986; Mathieu & Zajac, 1990). One of the main reasons for the interest in organizational commitment is its presumed relationships with important organizational outcomes such as turnover, performance, and absenteeism (Mowday, Porter & Steers, 1982). Research evidence has demonstrated significant relationships, particularly between organizational commitment and turnover (Lee & Mowday, 1987; Porter, Steers, Mowday & Boulian, 1974) and between organizational commitment and other behavioural outcomes such as performance (Meyer, Pounonen, Gellatly, Goffin & Jackson, 1989; Wiener & Vardi, 1980) and absenteeism (Farrel & Peterson, 1984; Steers & Rhodes, 1978). However, recent literature, based on quantitative summary of findings (Mathieu & Zajac, 1990; Randall, 1990), argues that, in general, the relationships between commitment and its outcomes have produced few large correlations. Because the overall magnitude of the relationships between commitment and outcomes were found to be relatively weak, researchers began to question the importance of organizational commitment as a research topic and as an organizationally desirable attitude (Randall, 1990).

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One explanation for the relatively low commitment-outcomes correlations might be that these relationships are not simple or direct, but moderated by other variables (Mathieu & Zajac, 1990). Quite surprisingly, however, one finds in the literature little empirical research and few proposed conceptual models of any moderating effects on the relationships between organizational commitment and its outcomes. However, career development and organizational commitment development theory (e.g. Mowday *et al.*, 1982; Super, 1957) does suggest that career stage may moderate the relationship between organizational commitment and outcomes.

The purpose of this meta-analysis is to examine the moderating effect of career stage on the relationships between organizational commitment and its primary outcomes: turnover, turnover intentions, performance and absenteeism (Mowday *et al.*, 1982). Based on the findings of this study it will be concluded whether career stage moderates commitment-work behaviour outcome relationships and whether this is a possible explanation for the modest relationships found in the literature. From a practical perspective, if commitment-outcome relationships vary across career stages, attempts to increase levels of organizational commitment should differ correspondingly. This understanding may allow for more effective organizational career planning programmes and would provide managers with more accurate explanations and predictions about behavioural outcomes on the job.

Mathieu & Zajac (1990) have pointed out that there has been very little work devoted to examining the impact of organizational commitment on other variables at different career stages. The present meta-analysis contributes in its response to the need for research that examines moderator effects as opposed to the 'main effects' approach which has typified most research, particularly that on organizational commitment. According to Griffin & Bateman (1986), only by employing a moderator effects approach will it be possible to examine the situational constraints, individual differences, and other variables which moderate and otherwise shape the relationships between commitment and work outcomes.

Theories and research evidence on the moderating effect of career stage

Several theories support the notion that the relationships between organizational commitment and outcomes are moderated by career stage. These theories include career development models forwarded by Super (1957), Super, Zerkowicz & Thompson (1981), and Levinson, Darrow, Klein, Levinson & McKee (1978), and organizational commitment development models forwarded by Mowday *et al.* (1982), and Reichers (1986).

Super (1957) and Levinson *et al.* (1978) argue that people, no matter what their occupation or background, pass through specific career stages characterized by various crucial activities and psychological adjustments. Individuals need both to master work activities and resolve important psychological issues at each point in their careers. According to Super's (1957) theory, there are three stages in a person's vocational career (age 25-65): exploration, establishment, and maintenance. Levinson *et al.* (1978) identified four 'life areas': childhood (0-20 years), early adulthood (20-40), middle adulthood (40-60), and late adulthood (over 60). Despite some differences (Ornstein, Cron & Slocum, 1989), both of these career development models posit that career stage will influence the strength of the relationship between commitment and outcomes.

While age is the most common career stage indicator, the organizational commitment development models also employ tenure as a career stage indicator. Mowday *et al.* (1982) developed a conceptual framework that proposes three stages in the development of organizational commitment: (a) the pre-entry stage, which deals with the influence of job choice on commitment; (b) the early employment stage; and (c) the middle and late career stages in the organization. A slightly different model which excludes the pre-employment stage was suggested by Reichers (1986) who concentrated on three stages of development: early, mid and late career stages. In order to avoid confusion, this paper will employ Reichers' terminology of career stages: early, mid and late. These categories partially correspond to the exploration, establishment, and maintenance stages of Super's (1957) theory and similarly to the 'entering the adult world' stage (early), 'thirties transition' and 'setting down' stages (mid), and 'middle adulthood' stage (late) of Levinson *et al.*'s (1978) typology.

What follows is a brief review of the arguments of the aforementioned theories which support the expectation that career stage moderates the relationship between organizational commitment and outcomes. It is worth noting that for some outcomes (turnover and turnover intentions) all of the theories support this moderator effect, while for other outcomes (performance and absenteeism) only some of the theories are supportive.

Turnover and turnover intentions

Actual turnover and turnover intentions are considered to be the strongest outcomes of low levels of employee commitment. Highly committed employees by definition are desirous of remaining with the organization (Mowday *et al.*, 1982). However, it can be expected that the relationship between commitment and turnover (actual and intended) will vary across career stages. In the early career stage, levels of organizational commitment vary dependent on an individual's opportunities and the availability of attractive alternatives (Meyer & Allen, 1984; Rusbult & Farrel, 1983). According to career development models (Levinson *et al.*, 1978; Super, 1957) those in the early career stage face the contradictory tasks of making commitments while keeping options open. An individual in the early career stage attempts to establish her/himself in a job which interests her/him, but should this job prove inappropriate s/he has little hesitation in choosing another. Employees at this stage express greater intention to leave their organization and more willingness to relocate than those in other age groups (Ornstein *et al.*, 1989; Ornstein & Isabella, 1990). The earliest period of membership is, therefore, the most critical period for turnover, and employees' attitudes towards the organization, especially commitment at this stage, will be important factors in their decisions to stay or leave.

Super's (1957) and Levinson *et al.*'s (1978) career models hold that propensity to leave an employer and chosen field of work decreases as one moves into the mid and late stages. People in the mid-career stage are more interested in developing stable work and personal lives and in making strong commitments to work, family, and community. People in the late stage of their career are in a stage of relative tranquillity. These persons are more oriented to 'settling down' and are less willing to relocate or leave the organization for purposes of promotion. Thus, one would expect a weaker

relationship between commitment and turnover in the mid- and late-career stages than in the early career stage, because in the later career stages turnover is relatively low regardless of commitment.

Mowday *et al.* (1982) argued that the development of commitment during the early stage appears particularly important to the continued attachment of employees because it decreases the likelihood of early termination. They also argued that commitment levels among new employees have been found to vary and may reflect different propensities to become committed to the organization. Based on this, it can be expected that levels of organizational commitment would be an important determinant of turnover in the early career stage. Additionally, Mowday *et al.* (1982) argued that levels of commitment developed during the early employment period appear to remain stable. Moreover, increased investments in the form of time and energy make it increasingly difficult for employees to leave their job voluntarily. The relative stability in commitment levels along with increased difficulties in leaving the organization decrease the magnitude of the relationship between commitment and turnover in the mid- and late-career stages.

Reichers' (1986) organizational commitment development theory suggested a slightly different explanation than that of Mowday *et al.* (1982). Reichers argued that the antecedents of commitment can be roughly classified into three categories: psychological (expectations, challenge, conflict); behavioural (volitional, irrevocable acts); and structural (tenure in the organization, accumulated investments/sunk costs). She suggested that each class of antecedent variables may be primarily associated with early, mid- or late-career commitments. At the early career stage psychological attachments to the organization may be the primary antecedents of commitment. Over time, the individual engages in various acts that bind her/him to the organization and lead to commitment.

In later career stages, not only do psychological and behavioural linkages operate to produce commitment on the part of the individual, but structural variables such as investments and lack of opportunity elsewhere may combine to cement the individual's attachment to the organization. Reichers (1986) concluded that the management of commitment among newcomers in organizations may be most problematic because behavioural and structural bounds had not yet had a chance to develop fully. Hence, in the early stage, variation in commitment will explain a large proportion of variation in turnover, while during the mid- and late-career stages, structural and personal considerations will decrease the effect of commitment upon turnover.

Performance

It is logical and consistent with theory that employees who are highly committed will behave in ways that are facilitative of organizational goal attainment. However, Mowday *et al.* (1982) found a rather weak relationship between commitment and job performance. This probably led Griffin & Bateman (1986) to suggest that commitment-performance linkages should be considered more carefully in terms of moderating variables. While much work has been done on the moderator effect of career stage upon the satisfaction-performance relationship, and other job attitude-performance relationships (Gould, 1979; Gould & Hawkins, 1978; Slocum & Cron, 1985; Stumpf

& Rabinowitz, 1981), no empirical study has examined the commitment-performance relationship across career stages.

The career development models (Levinson *et al.*, 1978; Super, 1957) provide some arguments for expecting that the commitment-performance relationship varies across career stages. According to these theories, it is expected that individuals in the early career stage, based on the process of exploration and lack of experience, will perform more poorly than people in other stages. Because of less work experience, job performance of employees in the early stage will be lower than that of individuals in the mid- and late-life stages (Ornstein *et al.*, 1989). Organizational commitment will have a limited effect on performance in the early stage because these employees' main obstacle is their lack of experience. Even if committed, their lack of experience may keep their level of performance relatively low. Variables expected to affect performance strongly are more specific task environment variables. For example, research evidence has demonstrated strong relationships between variables such as job satisfaction (Gould & Hawkins, 1978), role ambiguity, and intersender role conflict (Stumpf & Rabinowitz, 1981) and performance in the early career stage.

The learning of role tasks, likely to be the most important determinants of performance in the early stage, will decrease in importance as roles become familiar and individuals progress to the mid and late stages (Stumpf & Rabinowitz, 1981). At mid- and late-career stages, employees have gained the experience and knowledge of the job that enable them to perform better. The adjustment process has been completed and establishing commitments to work and family becomes a more salient issue. Task-related variables will have a weaker effect upon performance at the mid and late stages and more general attitudes such as commitment will have a stronger role in increasing performance at these stages. Therefore, it is expected that organizational commitment, as a general attitude toward the organization, would affect performance more strongly at the mid- and late-career stages than in the early career stage.

Absenteeism

Theory predicts that highly committed employees should be motivated to attend to facilitate organizational goal attainment (Mowday *et al.*, 1982). However, commitment was not found to be one of the major determinants of absenteeism. Farrel & Stamm (1988) in their meta-analysis of absenteeism correlates found that stronger determinants of absenteeism were task environment variables such as task significance, task variety, and feedback. However, following Super's (1957) and Levinson *et al.*'s (1978) career development theories it can be expected that the negative relationships between commitment and absenteeism would be stronger in the mid- and late-career stages than in the early career stage. The logic of this expectation is quite similar to the expected moderator effect of career stage upon performance.

The career development theories argue that the main concern of individuals in the early career stage is to identify their interests, capabilities, and the fit between self and job. During this stage, individuals attempt to build skills and develop the competency to make an occupational choice. As with performance, variables expected to affect absenteeism at the early stage are specific task environment variables. Employee satisfaction with the task environment represents a major influence on attendance

(Mowday *et al.*, 1982). From this, it appears that organizational commitment will have only a limited effect upon absenteeism in the early career stage because employee perception of the task environment is the major influence.

In the mid- and late-career stages, employees' attitudes toward their jobs become less important relative to the early stage. According to the career development models, there is a tendency, if the work situation and occupational choice are at all satisfactory, for levelling off in terms of career aspirations and advancement and an identification with the company and the field. Thus, it appears that in these late career stages it is not just the immediate task environment variables which affect absenteeism, as in the early stage, but also more general attitudes such as the attachment developed during the years with the organization, namely organizational commitment. Therefore, it is expected that organizational commitment affects absenteeism more strongly at the mid- and late-career stages.

Objectives of this study

All this evidence points to the need to examine whether the relationships between organizational commitment and its outcomes vary across career stages. Recent developments in meta-analysis (Hunter, Schmidt & Jackson, 1982; Hunter & Schmidt, 1990) have made it possible to re-examine existing studies using quantitative review methods. Such methods permit the statistical aggregation of research findings and the systematic assessment of inter-study moderators. Quantitative effects and samples can be cumulated and, consequently, commonalities beyond the scope of narrative can be brought to light. Given the lack of empirical research examining the outcomes of organizational commitment over career stages, a meta-analysis review appeared to be conceptually and practically appropriate. A meta-analysis review may advance our understanding of the relationships between organizational commitment and its outcomes. It may also provide primary knowledge to assist in comprehension of the theoretical mechanisms and models which explain organizational commitment-outcomes linkages across career stages.

Method

Meta-analysis

The Hunter *et al.* (1982) and Hunter & Schmidt (1990) meta-analysis procedure was used in this study because it aggregates correlation coefficients across studies, corrects for the presence of statistical artifacts and provides unbiased estimates of the theoretical population relationships. Following this method, the present study consists of three basic steps: the estimation of population mean correlations and variance, the correction for statistical artifacts, and the analysis of moderating effects.

Published studies were identified by means of both manual and computer-assisted searches of social science, psychology and managerial literature. The total number of studies reviewed was over 100 of which 30 included correlational data dealing with the relationships between organizational commitment and its outcomes. These studies included 41 independent samples. The 30 studies are referenced in the appendix.

Several additional points need to be emphasized in order to describe more completely the meta-analysis that was conducted. Statistical artifacts controlled for in this meta-analysis were sampling error, predictor and criteria unreliability. No corrections were made for range restrictions because of insufficient data. Based on Hunter *et al.*'s (1982) finding that the average correlation does not violate the indepen-

dence assumption, it was decided that if more than one correlation was reported for a single sample the average of these correlations would be used.

In accordance with arguments in the recent literature (e.g. McDaniel, Hirsh, Schmidt, Raju & Hunter, 1986) regarding the rules for rejecting the situational specificity hypothesis, it was decided to follow not only the Pearlman, Schmidt & Hunter (1980) rule of 75 per cent, but also to adopt McDaniel *et al.*'s (1986) recommendation that the actual amount of variance remaining after accounting for sample size be considered when determining generalizability. The chi square test suggested by Hunter *et al.* (1982) was used only as supporting evidence. Additionally, it was decided to adopt Schmidt, Hunter & Raju's (1988) suggestion that confidence intervals should be used to interpret validity generalization results.

Definition of career stages

It was decided to divide the total sample on the basis of two indicators of career stage, employee age and tenure in the organization. The main reason for this decision is the ambiguity and inconsistency in the literature regarding the use of age and/or tenure as career indicators. The organizational commitment development models (Mowday *et al.*, 1982; Reichers, 1986) employ tenure as the career indicator while the indicators of career development models (Levinson *et al.*, 1978; Super, 1957) tend to be age based. It is worth noting, however, that even the career development models sometimes employ tenure in the organization as the career indicator (Morrow & McElroy, 1987; Ornstein *et al.*, 1989). The problems associated with these different operationalizations was demonstrated in Morrow & McElroy's (1987) finding that different operationalizations of career stage result in different patterns of affective reactions across career stages. The solution in this study is to test both operationalizations.

Another reason for using the two indicators is Super's (1984) argument that it is possible for an individual to be at any stage at various points in his/her life/career depending upon the person's career stage within his/her organization. People can recycle through stages when major changes occur in their careers. A person who changed careers at the age of 40 is once again in the beginning cycle—similar to others who are only in their early twenties. This suggests that developmental age effects may not be equal across workers, but rather depend upon individuals' tenure in their organizations. Consequently, age cannot be used as a single indicator because organizational tenure may better characterize the underlying structure of the lives of adults by indicating the degree to which one's current work situation represents a transitional or stable career phase. If the moderator effect of career stage differs between the two indicators, it can be argued that age and tenure, as career indicators, offer different processes of moderating effects on commitment—outcome relationships.

The first indicator, employee age, was divided into three time frame subgroups: (a) up to 29 years, (b) 30–39 years, (c) 40+ years. Similar to previous operationalizations of time frames of age (Gould, 1979; Hall & Mansfield, 1975; Rush, Peacock, & Milkovich, 1980; Slocum & Cron, 1985), the first subgroup represents the early career stage, the second represents the mid-career stage, and the third represents the late stage. The second indicator, organizational tenure, was also divided into three subgroups: (a) up to 2 years, (b) 3–8 years, (c) nine years or more. Again, similar to previous operationalizations of time frames of tenure (Gould & Hawkins, 1978; Mount, 1984; Stumpf & Rabinowitz, 1981), the first subgroup of tenure represents the early stage; the second, the mid stage, and the third, the late stage.

Moderator effect

In the moderator analysis, a moderating effect would be indicated in two ways: (1) the average correlation varied from subgroup to subgroup, and (2) the corrected variance average was lower in the subgroups than for the data set as a whole (Hunter *et al.*, 1982). Hunter & Schmidt (1990, chapter 9) provide a statistical procedure for detecting a moderator among binary variables. Firstly, the overall meta-analysis should be split into two subgroups based on the moderator variable. A meta-analysis should be performed within each subgroup of studies. If the correlations of the two career subgroups differ in the predicted direction, this tends to confirm the predicted moderator variable.

However, they argue that there is the possibility that the observed difference between means (i.e. subgroup correlations) is due to second order sampling error. If a meta-analysis is based on a large number of studies, then there is little sampling error in meta-analytic estimates. However, if it is based on only

a small number of studies, then there will be sampling error in meta-analytic estimates of means and standard deviations. This is called second order sampling error.

Hunter & Schmidt (1990) argue that the range of potential sampling error in each subgroup of studies can be estimated by computing a confidence interval for the mean correlation in each subgroup. To the extent that these confidence intervals do not overlap, there is sharp confirmation of the predicted moderator variable. They propose that the way to measure the extent of the confidence intervals is to compute a significance test on the difference between the two main correlations. For the present study, Hunter & Schmidt's (1990) procedure was used to examine the significance of moderator effects and the differences between career subgroup correlations.

Finally, regarding the moderator analysis conducted in this study, it was decided that in cases in which one subgroup's corrected mean was missing because of lack of data, the moderator analysis results would be compared to the total sample mean correlation. In some cases, due to the subgroupings, correction for error of measurement could not take place because there were not enough reports of the reliabilities in one or both of the subgroups. In these cases, the observed variance and the correlation were corrected only for sampling error.

Results

Results of the meta-analysis are presented in Table 1. Results are presented for the following outcomes: turnover, intention to leave the organization, intention to stay in the organization, performance, and absenteeism. For each outcome two sets of findings are presented: (1) the main effect analysis, which examines the relationship between this variable and organizational commitment without controlling for career stage, and (2) the moderator analysis which controls for the two indicators of career stages examined in this study (age and organizational tenure). Results of the Hunter & Schmidt (1990) significance test of differences between career stages subgroups are presented in Table 2.

Actual turnover and turnover intentions

Results support the expected pattern of moderator effect of career stage for both actual turnover and turnover intentions. The relationships of organizational commitment with actual turnover and with the two turnover intentions variables were stronger for the early career group than for the mid- and late-career groups for both indicators of career stage (see Table 1). However, the differences in the correlations between the early and the mid- and late-career groups were more explicit when age was the career indicator. For actual turnover and the two turnover intention variables, the differences between the career subgroups were significant only when age was the career indicator (see Table 2). The relationship between organizational commitment and actual turnover was stronger in the early career stage ($r = -.49$) than in the mid- and late-career stages ($r = -.23$, in both). Similar directions were found for the two turnover intention variables. For the early career stage the corrected correlations with intention to leave ($r = -.64$) or stay ($r = .66$), were stronger than for later stages. These findings suggest a stronger moderating effect of age as a career indicator than of tenure. It is worth noting that the remaining unexplained variance for actual turnover and turnover intentions for most of the career subgroups was still high, even after controlling for career stage (see Table 1). These findings indicate that there are probably additional moderators affecting the relationship between organizational commitment and turnover.

Table 1. Meta-analysis results of outcomes of organizational commitment by two indicators of career stages

Outcomes	k	N	r	r _t	c.i.	ob.VAR	res.VAR	%	X ²
Turnover—total	16	5320	-.27	-.29	-.62	.03	.0263	.0236	10 162.30***
Age: up to 29 years	5	1667	-.47	-.49	-.69	-.29	.0115	.0097	16 31.60*** (10,11,22,26,28) ^a
30-39	5	1690	-.22	-.23			.0017	.0000	100 3.12 (1,21,23,27,29)
40+	3	688	-.21	-.23	-.50	.03	.0183	.0142	23 13.77** (5,14,21)
Tenure: up to 2 years	3	270	-.38	-.39	-.78	-.01	.0443	.0361	18 16.29*** (22,26,28)
3-8	8	3489	-.32	-.35	-.65	-.04	.0229	.0210	9 99.79*** (1,5,10,11,21(2),23,27)
9+	0								
Intention to leave the organization—total	21	4960	-.46	-.54	-.82	-.26	.0179	.0144	20 141.74***
Age: up to 29 years	4	438	-.58	-.64	-.80	-.49	.0096	.0051	44 9.20* (3,6(2),28)
30-39	6	1497	-.36	-.44	-.68	-.19	.0146	.0109	25 28.97*** (1,2,6,17,21,23)
40+ ^b	4	541	-.44	-.46			.0466	.0418	10 38.89*** (4(3),21)
Tenure: up to 2 years	1	85	-.69						(28)
3-8	6	1556	-.43	-.53	-.82	-.25	.0160	.0134	16 37.12*** (1,2,4,21(2),23)
9+ ^b	2	203	-.25	-.33			.0196	.0109	44 4.51* (4(2))
Intention to stay in the organization—total	9	3017	.50	.56	.35	.78	.0118	.0098	17 63.20***
Age: up to 29 years ^b	2	1397	.59	.66			.0030	.0024	20 9.87** (10,11)
30-39 ^b	5	1311	.44	.52			.0092	.0067	27 18.44*** (12,21,27(2), 30)
40+	2	309	.38	.38			.0042	.0000	100 1.77 (21,30)
Tenure: up to 2 years	0								
3-8 ^b	6	2757	.51	.54			.0109	.0097	11 55.33*** (10,11,12,21(2), 27)
9+	1	119	.38						(27)
Performance—total	14	2048	.11	.13	-.28	.53	.0400	.0333	17 84.17***
Age: up to 29 years	1	85	.62						(28)
30-39	5	1133	.05	.05	-.21	.31	.0185	.0141	24 21.09*** (12,25,27(2),30)
40+	4	344	.23	.28	-.38	.94	.0885	.0780	12 34.00*** (4(3),30)
Tenure: up to 2 years	1	85	.62						(28)
3-8	4	1014	.01	.01	-.34	.37	.0295	.0256	13 29.97*** (4,12,25,27)
9+	3	322	.30	.32	-.11	.75	.0507	.0430	15 19.73** (4(2), 27)

Table 1—continued

Outcomes	k	N	r	r_t	c.i.	ob. VAR	res. VAR	%	X^2
Absenteeism—total	7	1540	-.10	-.11	-.20	.0062	.0018	71	9.84
Age: up to 29 years	0								
30–39	3	941	-.09	-.09	-.24	.0079	.0048	40	7.59*
40+	4	599	-.12	-.14		.0042	.0000	100	2.62
Tenure: up to 2 years	0								
3–8	3	1180	-.07	-.08		.0008	.0000	100	1.00
9+	2	231	-.24	-.27		.0016	.0000	100	0.42
									(5, 12, 27)
									(8, 27)

* $p < .05$; ** $p < .01$; *** $p < .001$.

Note. K = the number of samples in each analysis; N = the total number of individuals in the k samples; r = the mean weighted uncorrected correlation; r_t = the mean weighted correlation corrected for attenuation; c.i. = 95% confidence interval for r_t ; ob. VAR = variance of the uncorrected correlations; res. VAR = ob. VAR corrected for statistical artifacts; % = the percentage of variance across sample attributed to statistical artifacts; and X^2 = a chi square test for variance remaining unaccounted for.

^a The numbers in parentheses refer to the number of the studies listed in the appendix.

^b Because reliabilities were not reported in this subgroup, the variance (ob. VAR) and the correlation (r) were corrected only for sampling error.

Table 2. Significance tests of differences between career stage groups

Outcomes	<i>r</i>	c.i.		<i>z</i>
Turnover				
Age: up to 29	-.47	-.56	-.38	
30-39	-.22	-.26	-.18	4.87*
up to 29	-.47	-.56	-.38	
40+	-.21	-.36	-.06	2.83*
30-39	-.22	-.26	-.18	
40+	-.21	-.36	-.06	0.19
Tenure: up to 2 years	-.38	-.62	-.14	
3-8	-.32	-.43	-.22	0.43
Intention to leave the organization				
Age: up to 29	-.58	-.67	-.49	
30-39	-.36	-.46	-.26	3.19*
up to 29	-.58	-.67	-.49	
40+	-.44	-.65	-.22	1.18
30-39	-.36	-.46	-.26	
40+	-.44	-.65	-.22	0.67
Tenure: 3-8	-.43	-.53	-.33	
9+	-.25	-.44	-.06	1.61
Intention to stay in the organization				
Age: up to 29	.59	.66	.51	
30-39	.44	.52	.36	2.59*
up to 29	.59	.66	.51	
40+	.38	.47	.29	3.49*
30-39	.44	.52	.36	
40+	.38	.47	.29	0.95
Performance				
Age: 30-39	.05	-.07	.17	
40+	.23	-.06	.52	1.12
Tenure: 3-8	.01	-.08	.10	
9+	.30	.05	.55	1.86*
Absenteeism				
Age: 30-39	-.09	-.17	-.00	
40+	-.12	-.19	-.06	0.49
Tenure: 3-8	-.07	-.12	-.02	
9+	-.24	-.30	-.18	5.17*

* $p < .05$.

Note. *r* = the mean weighted correlation; c.i. = confidence interval for the mean weighted correlation; *z* = *z* value for the significance tests on the difference between the two mean weighted correlations.

Performance

For both career indicators, age and tenure, the relationship between commitment and performance was stronger for the late-career stage than for the mid-career group or the total sample (see Table 1). This finding supports the expectation that the commitment-performance relationship would be strongest in the late-career stage.

However, it is worth noting that the differences between the two career groups that were compared, late and mid, were significant only when tenure was the career indicator (see Table 2). For the total as well as the two career subgroups, the relationships between commitment and performance were characterized by a large remaining unexplained variance. This indicates effects of other moderators.

Absenteeism

Results showed that for both career indicators the relationship between organizational commitment and absenteeism was strongest for the late-career group. This supports the expected moderator effect. Although the relationships were not strong, they were generalizable with insignificant remaining unexplained variance for both the total and the subgroups (see Table 1). However, the difference between the career subgroup correlations was significant only for tenure, indicating a moderating effect by tenure (3–8 years versus 9+ years), but not age (see Table 2).

Discussion

The main purpose of this study was to examine whether career stage moderates the relationships between commitment and organizational outcomes. In general, the results have demonstrated that the effects of organizational commitment on outcomes vary across career stages. This is especially true for the relationship between organizational commitment and turnover (actual and intended) when age is the career indicator. One can conclude, based on these results, that enhancing commitment in the early career stage is an important way of decreasing turnover. The results have also demonstrated that in the late career stage, when tenure is the career indicator, the relationships between organizational commitment with performance ($r = .32$) and absenteeism ($r = .27$) are stronger than those in other career stages. While correlations are modest they do demonstrate that in the early career stage organizational commitment affects these outcomes more than previous main effects analyses of these relationships have indicated (Mathieu & Zajac, 1990; Randall, 1990).

The findings of this study demonstrate that the relationships between commitment and outcomes vary not only across career stages but also that different outcomes are affected in different ways across career stages. It appears that turnover and turnover intentions are affected by organizational commitment more strongly in the early career stage than in the mid- and late-career stages, and that performance and absenteeism are affected the most in the late-career stage. From the point of view of career planning, it seems that the organization may benefit from increasing commitment across all career stages. Increasing commitment in the early career stage is important for decreasing turnover and in the mid- and late-career stages for reducing absenteeism and increasing performance.

Another interesting finding is the similarity between age and tenure with regard to their effects on outcomes. In this research both indicators of career stage had the same effect on commitment–outcomes relationships. This is contrary to Morrow & McElroy's (1987) hypothesis that different operationalizations of career stage may result in different patterns of affective reactions across career stages. However, there were some differences between the two career indicators in the magnitude of their effect.

As a career indicator, age affected turnover and turnover intentions significantly, while tenure yielded significant differences between the subgroups for performance and absenteeism.

One explanation for this difference could be that age and tenure represent different processes which affect different organizational outcomes. Age as an indicator is affected by both career and organizational issues and important psychological issues in one's life-events. Therefore, it has stronger effect upon turnover which is a behaviour that goes beyond merely affecting one's status in the organization to having strong implications for one's family, social life and other non-work factors (Mowday *et al.*, 1982). Tenure is an indicator that reflects mainly career issues with fewer effects upon life-events. Therefore, tenure affects internal organizational outcomes such as performance and absenteeism more strongly. Further research should examine this explanation as well as other potential differences between these two indicators of career stage.

Despite the findings of this study a large amount of unexplained variance in the commitment-outcome relationship remains. This residual variance could be due to artifacts such as variations in the quality of the measurement of commitment and the outcome variables or it could indicate that there are other moderators, some of which may also have strong moderating effects (Hunter & Schmidt, 1990). There probably are other moderators that affect these relationships. Research should continue, but with some shift in its focus. More empirical research that controls for moderators, such as career stage, is needed.

More theoretical development and more quantitative summary of previous findings would assist in detecting other moderators that affect commitment-outcomes linkages. Much of the meta-analysis work in the industrial psychology literature has concentrated on main effect analyses rather than moderator effects. As Guzzo, Jackson & Katzell (1987) have pointed out, 'one of the most exciting promises of meta-analysis is that it allows the reviewer to determine the effects of moderators that have never been examined in an original empirical study' (p. 414). Only through more examination of moderator effects will meta-analysis research achieve its potential in stimulating the development of new theories and testing the adequacy of existing theories.

Finally, it is important to note some limitations of this study. First, the study did not control for the type of measurement of absenteeism and performance. Controlling for the measurement of these variables might have resulted in differences in the findings across different measures (Farrel & Stamm, 1988; Mowday *et al.* 1982). Secondly, there is the problem of insufficient data. This led to insufficient data for meta-analysis in some of the career subgroups, such as in the early career group for the variables absenteeism and performance. In these two variables comparisons could be made only between mid- and late-subgroups and between each of the subgroups to the total sample. However, despite its limitations, the study demonstrates that attention should be shifted from main effect analysis to moderating effects in the relationships between commitment and organizational outcomes. While findings of this study support the view that these relationships vary across career stage, future research should try to provide a more solid conceptual framework for this moderating effect. Applying at least some of the career development (Levinson *et al.*, 1978; Super, 1957) and organizational commitment models (Mowday *et al.*, 1982; Reichers, 1986), as well as some of the arguments proposed in this study, may well be a good starting point.

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References

- Farrel, D. & Peterson, J. C. (1984). Commitment, absenteeism and turnover of new employees: A longitudinal study. *Human Relations*, 37, 681-692.
- Farrel, D. & Stamm, C. L. (1988). Meta-analysis of the correlates of employee absence. *Human Relations*, 41, 211-227.
- Gould, S. (1979). Age, job complexity, satisfaction, and performance. *Journal of Vocational Behavior*, 14, 209-223.
- Gould, S. & Hawkins, B. (1978). Organizational career stage as a moderator of the satisfaction-performance relationship. *Academy of Management Journal*, 21, 434-450.
- Griffin, R. W. & Bateman, T. S. (1986). Job satisfaction and organizational commitment. In C. L. Cooper & I. Robertson (Eds), *International Review of Industrial and Organizational Psychology*, pp. 157-188. New York: Wiley.
- Guzzo, R., Jackson, S. E. & Katzell, R. A. (1987). Meta-analysis analysis. In L. L. Cummings & B. M. Staw (Eds), *Research in Organizational Behavior*, 9, 407-442. Connecticut: JAI.
- Hall, D. T. & Mansfield, R. (1975). Relationships of age and seniority with career variables of engineers and scientists. *Journal of Applied Psychology*, 60, 201-210.
- Hunter, J. E., Schmidt, F. L. & Jackson, G. B. (1982). *Meta-analysis: Cumulating Research Findings Across Studies*. Beverly Hills, CA: Sage.
- Hunter, J. E. & Schmidt, F. L. (1990). *Methods of Meta-analysis: Correcting Error and Bias in Research Findings*. Beverly Hills, CA: Sage.
- Lee, T. W. & Mowday, R. T. (1987). Voluntarily leaving an organization: Empirical investigation of Steers and Mowday's model of turnover. *Academy of Management Journal*, 20, 721-743.
- Levinson, D. J., Darrow, C. N., Klein, E. B., Levinson, M. H. & McKee, B. (1978). *The Seasons of a Man's Life*. New York: Alfred A. Knopf.
- Mathieu, J. E. & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin*, 108, 171-194.
- McDaniel, M. A., Hirsh, H. R., Schmidt, F. L., Raju, N. S. & Hunter, J. E. (1986). Interpreting the results of meta-analytic research: A comment on Schmitt, Gooding, Noe & Kirsh (1984). *Personnel Psychology*, 39, 141-148.
- Meyer, P. J. & Allen, J. N. (1984). Testing the 'side bet' theory of organizational commitment: Some methodological considerations. *Journal of Applied Psychology*, 69, 372-378.
- Meyer, P. J., Paunonen, S. V., Gellatly, I. R., Goffin, R. D. & Jackson, D. N. (1989). Organizational commitment and job performance: It's the nature of commitment that counts. *Journal of Applied Psychology*, 74, 152-156.
- Morrow, P. C. & McElroy, J. C. (1987). Work commitment and job satisfaction over three career stages. *Journal of Occupational Behaviour*, 30, 330-346.
- Mount, M. K. (1984). Managerial career stage and facets of job satisfaction. *Journal of Vocational Behavior*, 24, 348-354.
- Mowday, R., Porter, L. & Steers, R. (1982). *Employee-Organization Linkages*. New York: Academic Press.
- Ornstein, S., Cron, W. L. & Slocum, J. W. (1989). Life stage versus career stage: A comparative test of the theories of Levinson and Super. *Journal of Organizational Behavior*, 10, 117-133.
- Ornstein, S. & Isabella, L. (1990). Age vs. stage models of career attitudes of women: A partial replication and extension. *Journal of Vocational Behavior*, 36, 1-19.
- Pearlman, K., Schmidt, F. L. & Hunter, J. E. (1980). Validity generalization results for tests used to predict training success and job proficiency in clerical occupations. *Journal of Applied Psychology*, 65, 373-406.
- Porter, L. W., Steers, R. M., Mowday, R. T. & Boulian, P. V. (1974). Organizational commitment, job satisfaction and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603-609.

- Randall, D. M. (1990). The consequences of organizational commitment: Methodological investigation. *Journal of Organizational Behavior*, 11, 361-378.
- Reichers, A. E. (1986). Conflict and organizational commitment. *Journal of Applied Psychology*, 71, 508-514.
- Rusbult, C. E. & Farrel, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment and turnover variations in rewards costs alternatives and investments. *Journal of Applied Psychology*, 68, 429-438.
- Rush, J. C., Peacock, A. C. & Milkovich, G. T. (1980). Career stages: A partial test of Levinson's model of life/career stages. *Journal of Vocational Behaviour*, 16, 347-359.
- Schmidt, F. L., Hunter, J. E. & Raju, N. S. (1988). Validity generalization and situational specificity: A second look at the 75% rule and the Fisher's z transformation. *Journal of Applied Psychology*, 73, 665-672.
- Slocum, J. W. & Cron, W. L. (1985). Job attitudes and performance during three career stages. *Journal of Vocational Behavior*, 26, 126-145.
- Steers, R. M. & Rhodes, S. R. (1978). Major influences on employee attendance: A process model. *Journal of Applied Psychology*, 63, 391-407.
- Stumpf, S. A. & Rabinowitz, S. (1981). Career stage as a moderator of performance relationships with facets of job satisfaction and role perceptions. *Journal of Vocational Behaviour*, 18, 202-218.
- Super, D. (1957). *The Psychology of Careers*. New York: Harper.
- Super, D. (1984). Career and life development. In D. Brown & L. Brooks (Eds), *Career Choice and Development*. San Francisco: Jossey-Bass.
- Super, D., Zerkowicz, R. & Thompson, A. (1981). *Career Concerns Inventory: Adult Form 1. Preliminary Manual*. New York: Teacher College, Columbia University.
- Wiener, Y. & Vardi, Y. (1980). Relationships between job, organization and work outcomes: An integrative approach. *Organizational Behavior and Human Performance*, 26, 81-96.

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Appendix

Published studies used in the meta-analysis

1. Arnold, H. J. & Feldman, C. C. (1982). A multivariate analysis of the determinants of job turnover. *Journal of Applied Psychology*, 67, 350-360.
2. Blau, G. J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58, 277-288.
3. Bluedorn, A. C. (1982). A unified model of turnover from organizations. *Human Relations*, 35, 135-153.
4. Chelte, A. E. & Tausky, C. (1986). A note on organization commitment. *Work and Occupations*, 13, 553-561.
5. Clegg, C. W. (1983). Psychology of employee lateness, absence and turnover: A methodological critique and an empirical study. *Journal of Applied Psychology*, 68, 88-101.
6. Dougherty, T. W., Bluedorn, C. A. & Keon, T. L. (1985). Predictors of employee turnover: A multiple-sample case analysis. *Journal of Occupational Behavior*, 6, 259-271.
7. Green, S. G., Blank, W. & Liden, R. C. (1983). Market and organizational influences on bank employees' work attitudes and behaviours. *Journal of Applied Psychology*, 68, 298-306.
8. Hammer, T. H., Landau, J. C. & Stern, R. N. (1981). Absenteeism when workers have a voice: The case of employee ownership. *Journal of Applied Psychology*, 66, 561-573.
9. Hollenbeck, J. R. & Williams, C. R. (1986). Turnover functionally versus turnover frequency: A note on work attitudes and organizational effectiveness. *Journal of Applied Psychology*, 71, 606-611.
10. Hom, P. W. & Hulin, C. L. (1981). A competitive test of the prediction of re-enlistment by several models. *Journal of Applied Psychology*, 66, 23-39.

11. Hom, P. W., Katerberg, R. & Hulin, C. L. (1979). Comparative examination of three approaches to the prediction of turnover. *Journal of Applied Psychology*, 64, 280-290.
12. Jamal, M. (1984). Job stress and job performance controversy: An empirical assessment. *Organizational Behavior and Human Performance*, 33, 1-21.
13. Jauch, L. R., Glueck, F. W. & Osborn, R. N. (1978). Organizational loyalty, professional commitment and academic research productivity. *Academy of Management Journal*, 21, 84-92.
14. Koch, J. L. & Steers, R. M. (1978). Job attachment, satisfaction and turnover among public sector employees. *Journal of Vocational Behavior*, 12, 119-128.
15. Lachman, R. & Aranya N. (1986a). Evaluation of alternative models of commitments and job attitudes of professionals. *Journal of Occupational Behavior*, 7, 227-243.
16. Lachman, R. & Aranya N. (1986b). Job attitudes and turnover intentions in different work settings. *Organization Studies*, 7, 279-293.
17. Lounsbary, J. W. & Hoopes, L. L. (1986). A vacation from work: Changes in work and non-work outcomes. *Journal of Applied Psychology*, 71, 392-401.
18. Marsh, R. M. & Mannari, H. (1977). Organizational commitment and turnover: A prediction study. *Administrative Science Quarterly*, 22, 57-75.
19. Michaels, C. E. & Spector, P. E. (1982). Causes of employee turnover: A test of the Mobley, Griffet, Hand & Meglino model. *Journal of Applied Psychology*, 67, 53-59.
20. Morris, J. H. & Snyder, R. A. (1979). A second look at need for achievement and need for autonomy as moderators of role perception outcome relationships. *Journal of Applied Psychology*, 64, 173-178.
21. Mowday, R. T., Koberg, C. S. & McArthur, A. W. (1984). The psychology of the withdrawal process: A cross-validated test of Mobley's intermediate linkages model of turnover in two samples. *Academy of Management Journal*, 27, 79-94.
22. O'Reilly, C. & Caldwell, D. (1981). The commitment and job tenure of new employees: A process of post-decisional justification. *Administrative Science Quarterly*, 26, 597-616.
23. Parasuraman, S. (1982). Predicting turnover intentions and turnover behaviour: A multivariate analysis. *Journal of Vocational Behaviour*, 21, 111-121.
24. Rhodes, S. R. & Steers, R. M. (1981). Conventional vs. worker-owned organizations. *Human Relations*, 34, 1013-1035.
25. Rotondi, T. (1975). Organizational identification: Issues and implications. *Organizational Behavior and Human Performance*, 13, 95-109.
26. Rusbult, C. E. & Farrel, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment and turnover of variations in rewards, costs, alternatives and investments. *Journal of Applied Psychology*, 68, 429-438.
27. Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly*, 22, 46-56.
28. Stumpf, S. A. & Hartmen, K. (1984). Individual exploration or organizational commitment of withdrawal. *Academy of Management Journal*, 27, 308-329.
29. Werbel, J. D. & Gould, S. (1984). A comparison of the relationship of commitment to the turnover in recently hired and tenured employees. *Journal of Applied Psychology*, 69, 687-690.
30. Wiener, Y. & Vardi, Y. (1980). Relationship between job, organization and work outcomes: An integrative approach. *Organizational Behavior and Human Performance*, 26, 81-96.

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